Amendments to the Claims:

Please amend claims 37, 41, 51, and 67 as follows:

1-36. (Canceled)

37. (Currently Amended) A method for disposing underfill on a microelectronic device having a plurality of pads and a plurality of electrical couplers projecting from corresponding pads, the method comprising flowing an underfill material including a plurality of electrically charged filler elements onto the microelectronic device and covering at least a portion of the electrical couplers.

38. (Original) The method of claim 37, further comprising manipulating at least a portion of the electrically charged filler elements.

39. (Original) The method of claim 37 wherein the electrically charged filler elements comprise silica, and wherein flowing the underfill material comprises flowing the underfill material including a plurality of electrically charged silica filler elements.

40. (Original) The method of claim 37 wherein the microelectronic device comprises a microelectronic die, and wherein flowing the underfill material comprises flowing the underfill material onto the microelectronic die.

41. (Currently Amended) A method for disposing underfill material on a microelectronic device having a plurality of electrical couplers, the method comprising:

depositing an underfill layer onto the microelectronic device and covering at least a portion of the electrical couplers, the underfill layer comprising a binder and a plurality of electrically charged filler elements in the binder; and

applying an electric field to the underfill layer to manipulate at least a portion of the electrically charged filler elements after depositing the underfill layer.

42. (Original) The method of claim 41 wherein the electrically charged filler elements comprise silica, and wherein depositing the underfill layer comprises depositing the underfill layer having a plurality of electrically charged silica filler elements.

43. (Original) The method of claim 41, further comprising at least partially curing the underfill layer after applying the electric field.

44. (Original) The method of claim 41 wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from a first zone to a second zone.

45. (Original) The method of claim 41 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein the distal ends of the electrical couplers define a plane that divides the underfill layer into a first zone between the plane and the microelectronic component and a second zone opposite the first zone, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the first zone to the second zone.

46. (Original) The method of claim 41 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein the distal ends of the electrical couplers define a plane that divides the underfill layer into a first zone between the plane and the microelectronic component and a second zone opposite the first zone, wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the first zone to the second zone, and wherein the method further comprises:

at least partially curing the underfill layer; and

removing the first zone of the underfill layer from the microelectronic device.

47. (Original) The method of claim 41 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein the distal ends of the electrical couplers define a plane that divides the underfill layer into a first zone between the plane and the microelectronic component and a second zone opposite the first zone, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone.

48. (Original) The method of claim 41 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein underfill layer includes a first surface proximate to the microelectronic component, a second surface opposite the first surface, a first zone, and a second zone extending between the second surface and the distal end of one of the electrical couplers, wherein the second zone is generally hemispherical, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone.

49. (Original) The method of claim 41, further comprising:
at least partially curing the underfill layer;
attaching the microelectronic device to a substrate; and
reflowing the microelectronic device.

50. (Original) The method of claim 41, further comprising:
at least partially curing the underfill layer; and
dicing the microelectronic device.

51. (Currently Amended) A method for disposing underfill material on a microelectronic device having a plurality of electrical couplers, the method comprising:

covering at least a portion of the electrical couplers of the microelectronic device with an underfill layer including a matrix and a plurality of electrically charged filler elements; and

moving at least a portion of the electrically charged filler elements within the underfill layer by applying an electric field to the underfill layer.

52. (Original) The method of claim 51 wherein the electrically charged filler elements comprise silica, and wherein covering the electrical couplers comprises depositing the underfill layer including a plurality of electrically charged silica filler elements.

53. (Original) The method of claim 51 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein the distal ends of the electrical couplers define a plane that divides the underfill layer into a first zone between the plane and the microelectronic component and a second zone opposite the first zone, and wherein moving the electrically charged filler elements comprises moving at least a portion of the electrically charged filler elements from the first zone to the second zone.

54. (Original) The method of claim 51 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein the distal ends of the electrical couplers define a plane that divides the underfill layer into a first zone between the plane and the microelectronic component and a second zone opposite the first zone, and wherein moving the electrically charged filler elements comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone.

55. (Original) The method of claim 51 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein underfill layer includes a first surface proximate to the microelectronic component, a second surface opposite the first surface, a first zone, and a second zone extending between the second surface and the distal end of one of the electrical couplers, wherein the second zone is generally hemispherical, and wherein moving the electrically charged filler elements comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone.

56. (Original) A method for attaching a substrate to a microelectronic device including a microelectronic component and a plurality of electrical couplers electrically coupled to the microelectronic component, the method comprising:

flowing an underfill material including a plurality of electrically charged filler elements onto the microelectronic device and covering at least a portion of the electrical couplers;

applying an electric field to the underfill material to move at least a portion of the electrically charged filler elements within the underfill material;

at least partially curing the underfill material; and

attaching a contact of the substrate to one of the plurality of electrical couplers of the microelectronic device.

57. (Original) The method of claim 56 wherein attaching the substrate to the microelectronic device comprises forming a fillet with the underfill material.

58. (Original) The method of claim 56 wherein the microelectronic device comprises a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein the distal ends of the electrical couplers define a plane that divides the underfill material into a first zone between the plane and the microelectronic component and a second zone opposite the first zone, and wherein applying the

electric field comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone.

59. (Original) The method of claim 56 wherein the microelectronic device includes a microelectronic component, wherein the electrical couplers include a proximal end proximate to the microelectronic component and a distal end opposite the proximal end, wherein underfill material includes a first surface proximate to the microelectronic component, a second surface opposite the first surface, a first zone, and a second zone extending between the second surface and the distal end of one of the electrical couplers, wherein the second zone is generally hemispherical, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone.

60. (Original) A method of underfilling a microelectronic device assembly including a microelectronic component, a substrate, and a plurality of electrical couplers coupling the microelectronic component to the substrate, the method comprising:

disposing an underfill layer including a plurality of electrically charged filler elements between the microelectronic component and the substrate; and

moving at least a portion of the plurality of electrically charged filler elements within the underfill layer by applying an electric field to the underfill layer.

61. (Original) The method of claim 60 wherein the electrically charged filler elements comprise silica, and wherein disposing the underfill layer comprises disposing the underfill layer including a plurality of electrically charged silica filler elements.

62. (Original) The method of claim 60 wherein moving the filler elements comprises moving at least a portion of the electrically charged filler elements from a first zone in the underfill layer to a second zone in the underfill layer.

63. (Original) The method of claim 60 wherein a plane divides the underfill layer into a first zone having a first concentration of electrically charged filler elements

and a second zone having a second concentration of electrically charged filler elements, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein moving the filler elements comprises moving at least a portion of the electrically charged filler elements from the first zone to the second zone so that the first concentration of electrically charged filler elements is less than the second concentration.

64. (Original) The method of claim 60 wherein a plane divides the underfill layer into a first zone having a first concentration of electrically charged filler elements and a second zone having a second concentration of electrically charged filler elements, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein moving the filler elements comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone so that the first concentration of electrically charged filler elements is greater than the second concentration.

65. (Original) The method of claim 60 wherein a plane divides the underfill layer into a first zone having a first coefficient of thermal expansion and a second zone having a second coefficient of thermal expansion, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein moving the filler elements comprises moving at least a portion of the electrically

charged filler elements from the first zone to the second zone so that the first coefficient of thermal expansion is greater than the second coefficient of thermal expansion.

66. (Original) The method of claim 60 wherein a plane divides the underfill layer into a first zone having a first coefficient of thermal expansion and a second zone having a second coefficient of thermal expansion, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein moving the filler elements comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone so that the first coefficient of thermal expansion is less than the second coefficient of thermal expansion.

67. (Currently Amended) A method of underfilling a microelectronic device assembly, the method comprising:

disposing an underfill layer including a plurality of electrically charged filler elements between a microelectronic component and a substrate coupled to the microelectronic component by electrical couplers; and

applying an electric field to the underfill layer to manipulate at least a portion of the electrically charged filler elements within the underfill layer.

68. (Original) The method of claim 67 wherein the electrically charged filler elements comprise silica, and wherein disposing the underfill layer comprises disposing the underfill layer including a plurality of electrically charged silica filler elements.

69. (Original) The method of claim 67 wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements within the underfill layer from a first zone to a second zone.

70. (Original) The method of claim 67 wherein a plane divides the underfill layer into a first zone having a first concentration of electrically charged filler elements and a second zone having a second concentration of electrically charged filler elements, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the first zone to the second zone so that the first concentration of electrically charged filler elements is less than the second concentration.

71. (Original) The method of claim 67 wherein a plane divides the underfill layer into a first zone having a first concentration of electrically charged filler elements and a second zone having a second concentration of electrically charged filler elements, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone so that the first concentration of electrically charged filler elements is greater than the second concentration.

72. (Original) The method of claim 67 wherein a plane divides the underfill layer into a first zone having a first coefficient of thermal expansion and a second zone having a second coefficient of thermal expansion, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and

wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the first zone to the second zone so that the first coefficient of thermal expansion is greater than the second coefficient of thermal expansion.

73. (Original) The method of claim 67 wherein a plane divides the underfill layer into a first zone having a first coefficient of thermal expansion and a second zone having a second coefficient of thermal expansion, wherein the plane is generally parallel to the microelectronic component and is between the microelectronic component and the substrate, wherein the first zone includes the portion of the underfill layer between the plane and the microelectronic component and the second zone includes the portion of the underfill layer between the plane and the substrate, and wherein applying the electric field comprises moving at least a portion of the electrically charged filler elements from the second zone to the first zone so that the first coefficient of thermal expansion is less than the second coefficient of thermal expansion.

74. (Original) A method of underfilling a microelectronic device assembly including a microelectronic component, a substrate, and electrical couplers coupling the microelectronic component to the substrate, the method comprising disposing an underfill layer including a plurality of electrically charged filler elements between the microelectronic component and the substrate so that the filler elements are distributed generally uniformly throughout the underfill layer.

75. (Original) The method of claim 74, further comprising manipulating at least a portion of the electrically charged filler elements.

76. (Original) The method of claim 74 wherein the electrically charged filler elements comprise silica, and wherein disposing the underfill layer comprises disposing the underfill layer including a plurality of electrically charged silica filler elements.

77. (Original) The method of claim 74 wherein the microelectronic component comprises a microelectronic die, and wherein disposing the underfill layer comprises disposing the underfill layer between the microelectronic die and the substrate.

78. (Original) A method of underfilling a microelectronic device assembly including a microelectronic component, a substrate, and electrical couplers coupling the microelectronic component to the substrate, the method comprising:

disposing an underfill layer including a plurality of electrically charged filler elements between the microelectronic component and the substrate, wherein the underfill layer has a zone having a coefficient of thermal expansion; and

changing the coefficient of thermal expansion of the zone by applying an electric field to the underfill layer to manipulate at least a portion of the electrically charged filler elements.

79. (Original) The method of claim 78 wherein the electrically charged filler elements comprise silica, and wherein disposing the underfill layer comprises disposing the underfill layer including a plurality of electrically charged silica filler elements.

80. (Original) The method of claim 78 wherein changing the coefficient of thermal expansion comprises moving out of the zone at least a portion of the electrically charged filler elements.

81. (Original) The method of claim 78 wherein changing the coefficient of thermal expansion comprises moving into the zone at least a portion of the electrically charged filler elements.

82. (Original) The method of claim 78 wherein a plane generally parallel to the microelectronic component and between the microelectronic component and the substrate defines the zone, wherein the zone includes the portion of the underfill layer between the plane and the microelectronic component, and wherein changing the

coefficient of thermal expansion of the zone comprises moving at least a portion of the electrically charged filler elements out of the zone.

83. (Original) The method of claim 78 wherein a plane generally parallel to the microelectronic component and between the microelectronic component and the substrate defines the zone, wherein the zone includes the portion of the underfill layer between the plane and the microelectronic component, and wherein changing the coefficient of thermal expansion of the zone comprises moving at least a portion of the electrically charged filler elements into the zone.

84-89. (Canceled)